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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/817,382 | 04/01/2004 | Hideya Kawahara | SUN04-0556-EKL | 2887 |

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| EXAMINER |
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SALOMON, PHENUEL S

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| ART UNIT | PAPER NUMBER |
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2109

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 02/27/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|---------------------------------------|--|--|
| Office Action Summary | Application No. 10/817,382 | Applicant(s) KAWAHARA ET AL. | |
| | Examiner Phenuel S. Salomon | Art Unit 2109 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>7/2005, 7/2005, 5/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the original filing of March 4, 2004. Claims 1-30 are pending and have been considered below.

Objections

2. The use of the trademark [for example Microsoft TM, NVIDIA TM, etc....] has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology. Although the use of trademark is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(b) that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-8, 11-18, and ²¹~~22~~-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Padula (US 6,330,486).

Claims 1, 11 & 21: Padula discloses a method, a computer-readable storage medium and an apparatus for generating spatialized audio from non-three-dimensionally aware applications, comprising:

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intercepting parameters associated with audio use from an application (col. 1, lines 54-59);

obtaining location information of a display window associated with the application within a three-dimensional display (col. 3, lines 9-15);

calculating an audio source location for the audio (col. 2, lines 24-32); and

positioning the audio at the audio source location in a three-dimensional sound space, wherein the audio source location is associated with a location of the display window in the three-dimensional display (col. 2, lines 60-67).

Claims 2, 12 & 22: Padula discloses a method, a computer-readable storage medium and an apparatus as in claims 1, 11 & 21 above, wherein intercepting information about audio use involves intercepting an audio stream from the application (col. 3, lines 55-60):

Claims 3, 13 & 23: Padula discloses a method, a computer-readable storage medium and an apparatus as in claims 1, 11 & 21 above, wherein intercepting information about audio use involves intercepting parameters (coordinates) associated with an audio stream from the application (col. 3, lines 60-67).

Claims 4, 14 & 24: Padula discloses a method, a computer-readable storage medium and an apparatus as in claims 1, 11 & 21 above, wherein obtaining location information of the display window associated with the application involves determining a set of coordinates on the three-dimensional display where the display window is located (col. 8, lines 12-30).

Claims 5, 15 & 25: Padula discloses a method, a computer-readable storage medium and an apparatus as in claims 1, 11 & 21 above, wherein calculating the audio source location involves using the location of the display window to calculate coordinates for the audio source location so that audio from the audio source location appears to originate at the location of the display window (col.9, lines 22-35).

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Claims 6, 16 & 26: Padula discloses a method, a computer-readable storage medium and an apparatus as in claims 1, 11 & 21 above, wherein intercepting information about audio use involves inserting wrapper code around an audio application programming interface (API) to intercept calls to the audio API (col.3, lines 60-67).

Claims 7, 17 & 27: Padula discloses a method, a computer-readable storage medium and an apparatus as in claims 6, 16 & 26 above, wherein the audio API routes intercepted audio information to a three-dimensional window (scene) manager (col. 5, lines 27-38).

Claims 8, 18 & 28: Padula discloses a method, a computer-readable storage medium and an apparatus as in claims 7, 17 & 27 above, wherein the three-dimensional window manager manipulates the audio information to position an apparent audio location prior to sending the audio information to code underlying the audio API (col. 5, lines 27-53).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9-10, 19-20 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Padula (US 6,330,486) in view of Gibson (US 5,812,688).

Claims 9,19 and 29: Padula discloses a method, a computer-readable and an apparatus as in claims 1, 11 and 21 above, but does not explicitly disclose "reducing audio volume of other applications when a given application is issuing a request for a warning tone, wherein reducing audio volume of other applications causes the warning tone from the given application to be predominant. Gibson discloses "changes in volume of the reverb

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effect" (col. 7, lines 14-30). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include this feature in Padula. One would have been motivated to do so in order to efficiently tune out sounds in which one's not interested.

Claims 10, 20 and 30 and : Padula discloses a method, a computer-readable and an apparatus as in claims 1, 11 and 21 above, but does not explicitly disclose "when a given application is issuing a request for user attention or the three-dimensional window manager decides to get the user's attention to a certain application running in the three-dimensional window, the method further comprises applying spatial audio effects to the audio that the application is generating, wherein the spatial effects include panning the audio source location in the three-dimensional space left and right repeatedly and rapidly". Gibson discloses an "aural effect where the sound is stretched and a delay panned from left to right" (col. 7, lines 5-13). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include this special effect in Padula. One would have been motivated to do so in order to demonstrate the sound dynamics that occur between speakers.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

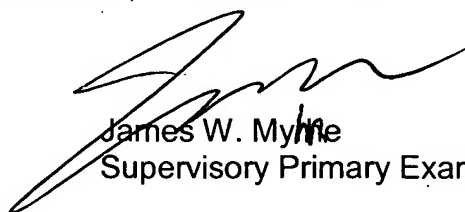
a. Lowe et al. (US 5,105,462) discloses "sound imaging method and apparatus".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phenuel S. Salomon whose telephone number is (571) 270-1699. The examiner can normally be reached on Mon-Fri 7:00 A.M. to 4:00 P.M.(Alternate Friday Off) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Myhre can be reached on (571) 270-1065. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3800.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PSS
2/20/2007



James W. Myhre
Supervisory Primary Examiner